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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,473	07/10/2001	Gabriele Korus	S2201-0603	6770
28481	7590	10/07/2003	EXAMINER	
TIAJOLOFF & KELLY CHRYSLER BUILDING, 37TH FLOOR 405 LEXINGTON AVENUE NEW YORK, NY 10174			VINCENT, SEAN E	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/902,473	Applicant() KORUS ET AL.	
	Examiner Sean E Vincent	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-26 and 31-35 is/are rejected.
- 7) ☒ Claim(s) 27-30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 16-18, 22-24, 31, 32, 34 and 35 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Loxley et al (US 5389582). Features taught by Loxley et al include: cristobalite reinforcement of quartz glass crucibles (abstract, col. 1, lines 13-21); crystallization aid comprising aluminum oxide or aluminum oxide precursor at least .005 percent, oxynitrides, nitrides, salts (col. 5, lines 4-29); silicates including zirconium silicate (col. 5, lines 30-35 and 51-68 and col. 6, lines 1-18); silicate decomposition above 1450°C (1500-1600 in col. 6, lines 1-18); alkaline earth oxides (col. 7, lines 46-53).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 19, 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loxley et al in view of Christman et al (US 6143073).

6. Loxley et al taught applicant's claimed invention except for using reducing conditions during arc melting preparation of the inner layer. Christman et al taught an arc melting process for making fused silica crucibles using reducing and non-reacting gas injection and graphite electrodes (see col. 3, lines 24-68 and col. 4, lines 9-60). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the preparation techniques of Christman et al instead of the slip casting method of Loxley et al because Christman et al taught that it was known in the art and that fewer defects would be produced. With regard to claim 19's limitation of reducing action adjustment, it is the position of the examiner that limitations of future properties of the product formed are not germane to the forming process in this case.

7. Claims 26 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loxley et al in view of Hansen et al (US 5980629).

8. Loxley et al taught alkaline earth oxide inclusion but failed to teach applicant's alkaline earth metal compounds. Hansen et al taught fused silica crucible preparation with the addition of alkaline earth silicates (see col. 6, lines 1-33). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the devitrification promoters of Hansen et al in the process of Loxley et al because Hansen et al taught that the

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alkaline earth metal ions produced by the use of such silicates were well known to accelerate devitrification.

Allowable Subject Matter

9. Claims 27-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or fairly suggest barium titanate, barium zirconate, titanium silicide or tungsten silicide reducing agent additions in the proportions claimed within the method as claimed. It would not have been obvious to include such compounds in the prior art methods.

Conclusion

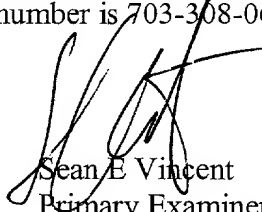
11. The prior art made of record and not relied upon is cited to further show the state of the art.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean E Vincent whose telephone number is 703-305-3607. The examiner can normally be reached on M - F (8:30 - 6:00) Second Monday Off.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P Griffin can be reached on 703-308-1164. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

14. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

S Vincent


Sean E Vincent
Primary Examiner
Art Unit 1731